Cell and Tissue Research

Continuation of Zeitschrift für Zellforschung und mikroskopische Anatomie

Vol. 174 · 1976

Edited by
W. Bargmann, Kiel
D. S. Farner, Seattle
B. Lofts, Hong Kong
A. Oksche, Giessen
B. Scharrer, New York

In Cooperation with
A. Björklund, Lund
R. A. Cloney, Seattle
G. v. Ehrenstein, Göttingen
J. Flament-Durand, Bruxelles
T. Hökfelt, Stockholm
L. Vollrath, Mainz

Springer International

Cell and Tissue Research

This journal was founded in 1924 as the Zeitschrift für Zellen- und Gewebelehre, from Vol. 2 (1925) it was published with the subtitle: Continuation of the Schultze-Waldeyer-Hertwig Archiv für mikroskopische Anatomie. Zeitschrift für Zellforschung und mikroskopische Anatomie (Vols. 1–20) (1934) as: Zeitschrift für wissenschaftliche Biologie (Abteilung B) edited by *R. Goldschmidt, W. von Möllendorff, H. Bauer, J. Seiler*. Vols. 2–28 (1938) edited by *R. Goldschmidt* and *W. von Möllendorff*. Vols. 29–33 (1944) as: Zeitschrift für Zellforschung und mikroskopische Anatomie, Abteilung A, Allgemeine Zellforschung und mikroskopische Anatomie, edited by *W. von Möllendorff* and *J. Seiler*, from Vol. 34 without the subtitle, Abteilung A, Allgemeine Zellforschung und mikroskopische Anatomie. From Vol. 36 (1951) edited by *W. Bargmann, J. Seiler;* from Vol. 53 (1960) edited by *W. Bargmann, B. Scharrer, J. Seiler;* from Vol. 83 (1967) edited by *W. Bargmann, D.S. Farner, A. Oksche, B. Scharrer, J. Seiler;* from Vol. 125 (1972) edited by *W. Bargmann, D.S. Farner, F. Knowles, A. Oksche, B. Scharrer*. Beginning with Vol. 125 (1972) with the subtitle Cell and Tissue Research and beginning with Vol. 148 (1974) under the title Cell and Tissue Research and the subtitle Continuation of Zeitschrift für Zellforschung und mikroskopische Anatomie. Beginning with Vol. 164 (1975) edited by *W. Bargmann, D.S. Farner, B. Lofts, A. Oksche, B. Scharrer*. Beginning with Vol. 166 (1976) in cooperation with: *A. Björklund, R.A. Cloney, G.v. Ehrenstein, J. Flament-Durand, T. Hökfelt, L. Vollrath*.

Published: Vols. 34–35 (1948–1950) Springer, Wien, from Vol. 36 Springer, Berlin.

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions, also in microform, is transferred to the publisher.

The use of registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Springer-Verlag, Berlin · Heidelberg · New York

Printers: Universitätsdruckerei H. Stürtz AG, Würzburg

Printed in Germany – © by Springer-Verlag Berlin-Heidelberg 1976

Inhalt/Contents

Berta Scharrer: 70th Birthday – December 1, 1976 . . . . . I–IV
Adam, H., s. Alvestad-Graebner, I. 427
Alvestad-Graebner, I., Adam, H.: Relationship between the Chromatoid Body and the Acrosomal System in Early Spermatids of *Myxine glutinosa* L. (Short Communication) 427
Aros, B., s. Vigh-Teichmann, I., et al. 139
Bagwell, J.N., Ziegler, J., Ruby, J.R.: The Effects of Prostaglandin $F_{2\alpha}$ on the Fine Structure of the Corpus luteum of the Pregnant Hamster 465
Baker, B.I., s. Benjamin, M. 547
Baskin, D.G.: The Fine Structure of Polychaete Septate Junctions 55
Beauvillain, J.-C., Mazzuca, M., Dubois, M.P.: The Thyrotropic Cells of the Guinea Pig Pituitary. Electron Microscopic Study after Characterization by Immunocytochemical Means 233
Benjamin, M., Baker, B.I.: Ultrastructural Studies on Prolactin and Growth Hormone Cells in *Anguilla* Pituitaries in vitro 547
Berghe, H. Van Den, s. Schueren, B. Van der, et al. 499
Bern, H.A., s. Chan, D.K.O. 339
Bruyn, M.G.A. de, s. Peute, J., et al. 35
Cassiman, J.-J., s. Schueren, B. Van der, et al. 499
Castel, M., Hochman, J.: Ultrastructural Immunohistochemical Localization of Vasopressin in the Hypothalamic-Neurohypophysial System of Three Murids 69
Cavey, M.J., Cloney, R.A.: Ultrastructure and Differentiation of Ascidian Muscle. I. Caudal Musculature of the Larva of *Diplosoma macdonaldi* 289
Chakraborty, J., Nelson, L., Jhunjhunwala, J., Young, M., Kropp, K.: Basal Lamina of Human Seminiferous Tubule – Its Role in Material Transport. I. In Presence of Tunica Vaginal Hydrocele 261
Chamley, J.H., s. Unsicker, K., et al. 83
Chan, D.K.O., Bern, H.A.: The Caudal Neurosecretory System. A Critical Evaluation of the Two-hormone Hypothesis 339
Cloney, R.A., s. Cavey, M.J. 289
Cotta-Pereira, G., s. Machado, R.D., et al. 355
Cowan, F.B.M., s. Thompson, I.G. 417
Dacheux, F., Dubois, M.P.: Ultrastructural Localization of Prolactin, Growth Hormone and Luteinizing Hormone by Immunocytochemical Techniques in the Bovine Pituitary . . . 245
Daems, W.Th., s. Dongen, J.M. van, et al. 183
Dierickx, K., Vandesande, F.: Immuno-Enzyme Cytochemical Demonstration of Mesotocinergic Nerve Fibres in the Pars intermedia of the Amphibian Hypophysis 25
Dixon, J.S., Gosling, J.A.: The Morphology and Innervation of Subepithelial "Striated" Muscle Cells in the Male Guinea-pig Urethra 281
Dongen, J.M. van, Visser, W.J., Daems, W.Th., Galjaard, H.: The Relation between Cell Proliferation, Differentiation and Ultrastructural Development in Rat Intestinal Epithelium 183
Dubois, M.P., s. Beauvillain, J.-C., et al. 233
Dubois, M.P., s. Dacheux, F. 245
Eichelberg, H.: The Fine Structure of the Drum Muscles of the Tigerfish, *Therapon jarbua*, as Compared with the Trunk Musculature 453
Eide, A., Fossberg, T.M.: Autoradiographic Study on the Localization of Estradiol-17β in Neonatal Mouse Uterus and Cervix 329
Fossberg, T.M., s. Eide, A. 329
Galjaard, H., s. Dongen, J.M. van, et al. 183

Gosling, J.A., s. Dixon, J.S. 281
Hochman, J., s. Castel, M. 69
Jhunjhunwala, J., s. Chakraborty, J., et al. 261
Kappers, J. Ariëns, s. Pevet, P., et al. 1
Kobayashi, K., Shibasaki, S., Takahashi, Y.: Light and Electron Microscopic Study on the Endocrine Cells of the Pancreas in a Marine Teleost, *Fugu rubripes rubripes* 161
Koopowitz, H., s. Stone, G.C. 519, 533
Korf, H.-W.: Histological, Histochemical and Electron Microscopical Studies on the Nervous Apparatus of the Pineal Organ in the Tiger Salamander, *Ambystoma tigrinum* 475
Krisch, B.: Immunohistochemical and Electron Microscopic Study of the Rat Hypothalamic Nuclei and Cell Clusters under Various Experimental Conditions. Possible Sites of Hormone Release 109
Kropp, K., s. Chakraborty, J., et al. 261
Krstić, R.: A Combined Scanning and Transmission Electron Microscopic Study and Electron Probe Microanalysis of Human Pineal Acervuli 129
Leonhardt, H.: "Axonal Spheroids" in the Spinal Cord of Normal Rabbits 99
Livingston, A., Wilks, P.N.: Perivascular Regions of the Rat Neural Lobe 273
Machado, R.D., Souza, W. de, Cotta-Pereira, G., Oliveira Castro, G. de: On the Fine Structure of the Electrocyte of *Electrophorus electricus* L. 355
Mazzuca, M., s. Beauvillain, J.-C., et al. 233
McLean, J., s. Unsicker, K., et al. 83
Mehard, C.W., Volcani, B.E.: Silicon-Containing Granules of Rat Liver, Kidney and Spleen Mitochondria. Electron Probe X-ray Microanalysis 315
Minnen, J. Van, s. Roubos, E.W., et al. 201
Moorer-Van Delft, C.M., s. Roubos, E.W., et al. 201
Moorer-Van Delft, C.M., s. Roubos, E.W. 221
Müller, W.: Subsarcolemmal Mitochondria and Capillarization of Soleus Muscle Fibers in Young Rats Subjected to an Endurance Training. A Morphometric Study of Semithin Sections 367
Nelson, L., s. Chakraborty, J., et al. 261
Neumann-Visscher, S.: The Embryonic Diapause of *Aulocara elliotti* (Orthoptera, Acrididiae). Histological and Morphometric Changes during Diapause Development and Following Experimental Termination with Juvenile Hormone Analogue 433
Nevo, E., s. Pevet, P., et al. 1
Oliveira Castro, G. de, s. Machado, R.D., et al. 355
Oordt, P.G.W.J. van, s. Peute, J., et al. 35
Peute, J., Bruyn, M.G.A. de, Seldenrijk, R., Oordt, P.G.W.J. van: Cytophysiology and Innervation of Gonadotropic Cells in the Pituitary of the Black Molly (*Poecilia latipinna*). An Electron Microscopical Study 35
Pevet, P., Kappers, J. Ariëns, Nevo, E.: The Pineal Gland of the Mole-rat (*Spalax ehrenbergi*, Nehring). I. The Fine Structure of Pinealocytes 1
Roubos, E.W., Minnen, J. Van, Wijdenes, J., Moorer-Van Delft, C.M.: An Ultrastructural in vitro Study on the Regulation of Neurosecretory Activity in the Freshwater Snail *Lymnaea stagnalis* (L.) with Particular Reference to Caudo-Dorsal Cells 201
Roubos, E.W., Moorer-Van Delft, C.M.: Morphometric in vitro Analysis of the Control of the Activity of the Neurosecretory Dark Green Cells in the Freshwater Snail *Lymnaea stagnalis* (L.) 221
Ruby, J.R., s. Bagwell, J.N., et al. 465
Schueren, B. Van der, Cassiman, J.-J., Berghe, H. Van Den: Aggregation-induced Alterations in Fibroblast Morphology. An Ultrastructural Study 499
Seldenrijk, R., s. Peute, J., et al. 35
Shibasaki, S., s. Kobayashi, K., et al. 161
Souza, W. de, s. Machado, R.D., et al. 355
Stone, G.C., Koopowitz, H.: The Ultrastructural Organization of the Visual System of the Wax Moth, *Galleria mellonella*: The Retina 519
Stone, G.C., Koopowitz, H.: The Ultrastructural Organization of the Visual System of the Wax Moth, *Galleria mellonella*: The Optic Tract 533

Takahashi, Y., s. Kobayashi, K., et al. 161
Thompson, I.G., Cowan, F.B.M.: Localization of K^+-Stimulated p-NPPase in the Lachrymal 'Salt' Gland of *Malaclemys*, Using Cytochemical and Autoradiographical Techniques 417
Unsicker, K., Chamley, J.H., McLean, J.: Extraneuronal Effects of 6-Hydroxydopamine. Tissue Culture Studies on Adrenocortical Cells of Rats 83
Vandesande, F., s. Dierickx, K. 25
Vigh, B., s. Vigh-Teichmann, I., et al. 139
Vigh-Teichmann, I., Vigh, B., Aros, B.: Ciliated Neurons and Different Types of Synapses in Anterior Hypothalamic Nuclei of Reptiles 139
Visser, W.J., s. Dongen, J.M. van, et al. 183
Volcani, B.E., s. Mehard, C.W. 315
Wijdenes, J., s. Roubos, E.W., et al. 201
Wilks, P.N., s. Livingston, A. 273
Yokoyama, K.: Hypothalamic and Hormonal Control of the Photoperiodically Induced Vernal Functions in the White-crowned Sparrow, *Zonotrichia leucophrys gambelii*. 1. The Effects of Hypothalamic Lesions and Exogenous Hormones 391
Young, M., s. Chakraborty, J., et al. 261
Ziegler, J., s. Bagwell, J.N., et al. 465
Erratum: M.F. Hay, D.G. Cran, R.M. Moor: Structural Changes Occurring during Atresia in Sheep Ovarian Follicles 431

Indexed in Current Contents

Digitized by the Internet Archive
in 2023 with funding from
Kahle/Austin Foundation

https://archive.org/details/cell-and-tissue-research_1976_174_contents

Instructions to Authors

1. Manuscripts should be submitted in duplicate, typed double-spaced with wide margins and on one side of the paper only. They should be carefully prepared in the style of this journal and checked before being submitted. Typing errors should be corrected legibly.

The material should be arranged under the following headings: Introduction, Material and Methods, Results, Discussion, and References. The text should be concise and consistent as to spelling, abbreviations, etc. Pages should be consecutively numbered. The desired position of figures and tables should be marked in the margin. Changes in the proofs should be kept to a minimum; a charge will be made for changes introduced after the manuscript has been set in type.

Papers must be written in English, thus ensuring the widest possible readership. Authors not wholly familiar with English usage are advised to seek the help of an English-speaking colleague. Editorial assistance with the language is available when needed. However, correct style is the responsibility of the author(s).

Manuscripts which have been heavily corrected by the copy editor will be returned to the author for retyping.

Brief accounts of particularly interesting results will be printed out of turn as "Short Communications". They should not exceed 2 or at the most 3 printed pages, including a table or figure, should this be necessary. The Editors reserve the right to decide what constitutes a "Short Communication".

2. Each paper should be preceded by a **brief summary** of not more than 200 words. Authors may append a German or French summary to their manuscript if they wish.

3. Key words. Immediately following the summary not more than 5 English key words should be supplied for subject indexing. Key words should be taken from the Index Medicus (Medical Subject Headings) or, failing this, composed on the same principles.

4. On the first page of the manuscript the author(s) should furnish the following information: Title, Author(s)' name(s), Department, Running head (condensed title), not to exceed 72 letters including spaces, and Address to which proofs should be sent.

5. Dedications and short acknowledgements to persons and organizations should be inserted as footnotes on the first page. Footnotes which do not belong to the head of the article should be numbered consecutively.

6. Small print. Text of secondary importance, including Material and Methods, should appear in small print and must be marked as such.

7. Literature references. In the text, names of authors should be followed by the year of publication. Where there are more than two authors, only the first is named, followed by "et al." All papers mentioned in the text, and only these, should be cited in the bibliography.

The **bibliography,** to be placed at the end of the paper, should be in **alphabetical order.** Several publications by the same author or group of authors should be listed in chronological order; those that appear in the same year should be distinguished by the suffixes a, b, c, etc.

In the bibliography the following information should be provided for **journal articles:** names and initials of all authors, complete title of paper, name of journal (abbreviated in accordance with World Medical Periodicals), number of volume, first and last pages, and year of publication.

Books are cited by listing the authors' names, full title, edition, place of publication, publisher and year.

Samples:

Boquist, L.: Occurrence of oxyphil cells in suppressed parathyroid glands. Cell Tiss. Res. **163**, 465–470 (1975)

Deane, H.W.: The anatomy, chemistry, and physiology of adrenocortical tissue. In: Handbuch der experimentellen Pharmakologie, Bd. XIV/1. (O. Eichler and A. Farah, eds.) Berlin-Göttingen-Heidelberg: Springer 1962

8. Figures. The number and size of the illustrations must be kept to the minimum required for clarification of the text. Previously published figures cannot be accepted. Explanations of figures furnished as legends should not be repeated in the text. Numerical data given in graphs or tables must not duplicate each other. As a rule, requests for colour reproductions cannot be approved unless the authors bear the costs. The journal is not subsidized in any way. Therefore, when papers have **an excessive number of illustrations** (even though the Editors agree that they are essential) it is necessary to ask the author, or his (her) institution, to make a contribution toward the cost of reproduction.

The lettering, including figure numbers, of electron micrographs, with Letraset (instant lettering) is recommended. All figures, whether photographs, graphs or diagrams, should be numbered consecutively throughout and submitted on separate sheets. Any parts of a figure which demand particular care during reproduction should be indicated on a transparent overlay with a soft pencil.

Halftone illustrations, in the final size desired, should be submitted in economically arranged layouts not to exceed the size of the printed page (122 × 195 mm). Individual areas (figures) should be separated by spaces of no more than 1 mm. They should be mounted on *thin* cardboard or heavy paper. Unmounted figures are acceptable when they are not part of a layout.

Line drawings. Please submit good-quality glossy prints in the desired final size. The inscriptions should be clearly legible. Letters 2 mm high are recommended.

Half-Tone illustrations. Please submit well-contrasted photographic prints, trimmed at right angles and in the desired final size. Inscriptions should be about 3 mm high.

9. Captions. Each figure should be clearly described but in a tight kind of wording. However, remarks like: "For explanation, see text" should be avoided. Captions are a part of the text and should be appended to it.

10. Tables should be numbered consecutively in arabic numerals. They should be typed on separate sheets.

11. Mailing. Manuscripts and illustrations should be well packed in order to avoid damage in transit.

12. 50 offprints of each paper will be supplied free of charge; additional copies may be ordered at cost price.